Figure 1 Computer Display System

Main Memory (24)

Central Processing Unit (CPU) (12)

Bridge Chipset (14)

Computer Graphics Processor (CGP) (16)

Display (18)

Input devices Mouse, Keyboard, Joystick, etc. (22)

Local Graphics Memory (20)

Figure 1 Computer Display System

Figure 2 Texture Cache System

U,V,LOD

Texture Address Generator (32)

(24)

(26)

W Cache Controller (38)

X Cache Controller (40)

Y Cache Controller (42)

Z Cache Controller (44)

Main Texture Memory (34)

Cache Arbiter (28)

Texture Cache Memory (30)

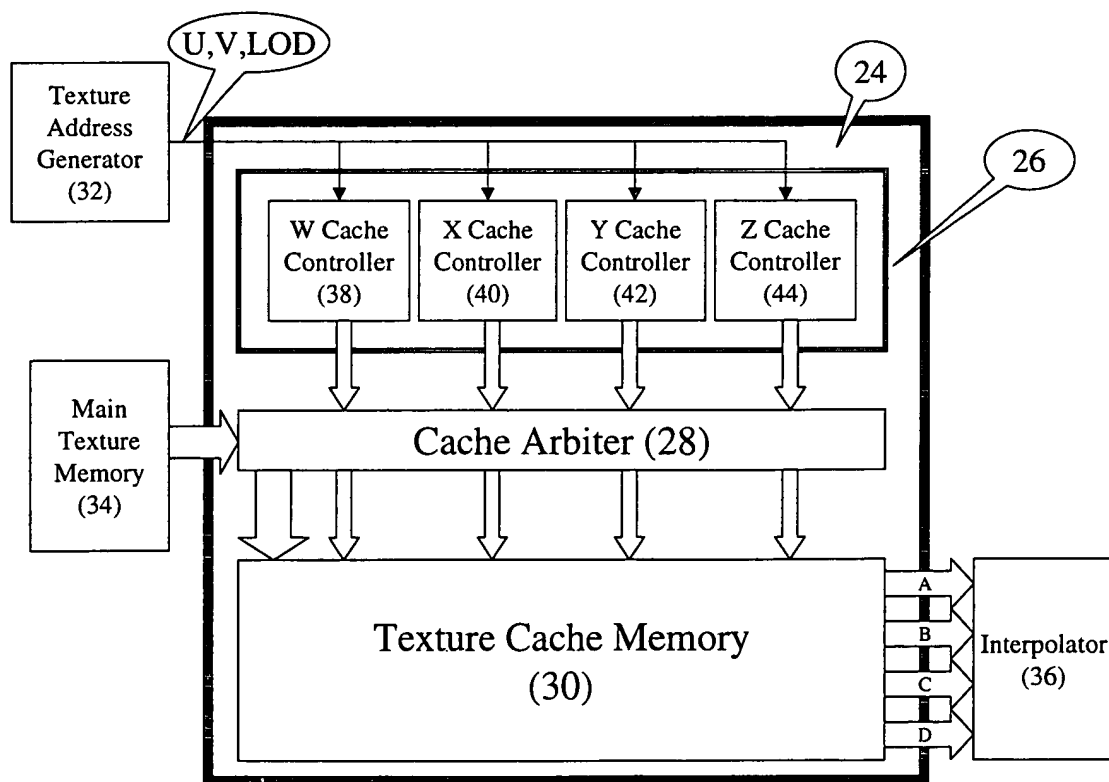A
B
C
D

Interpolator (36)

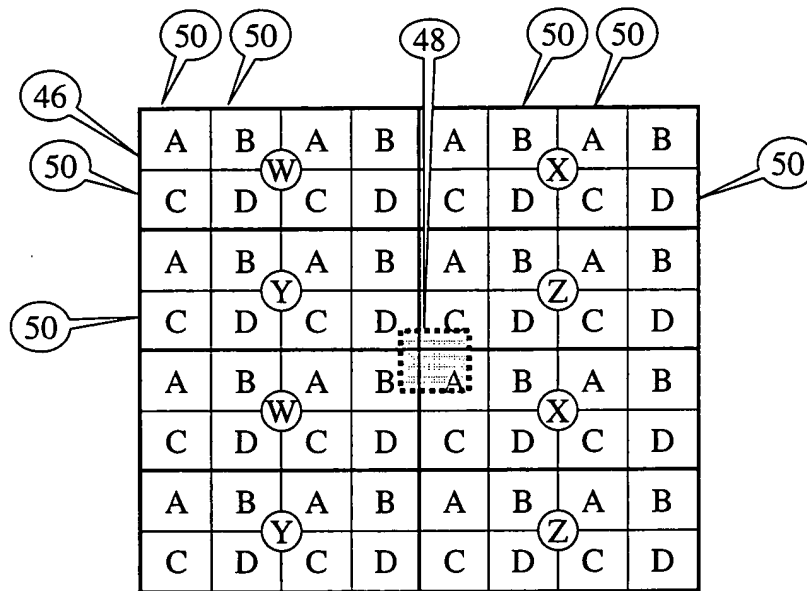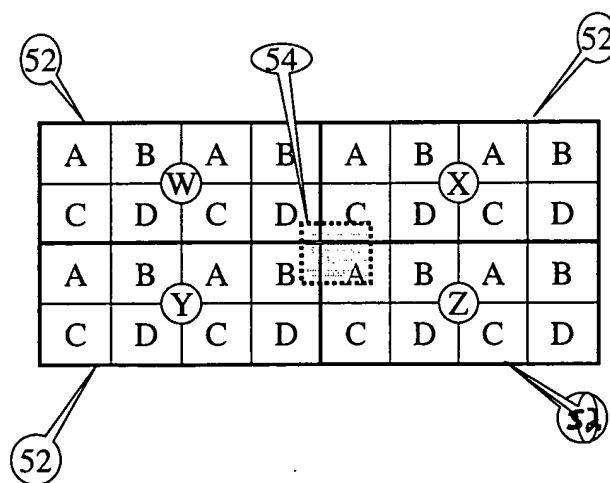Figure 2 Texture Cache System

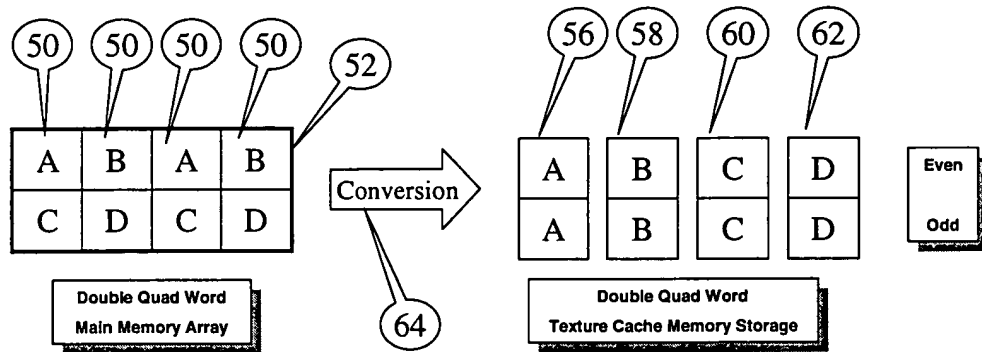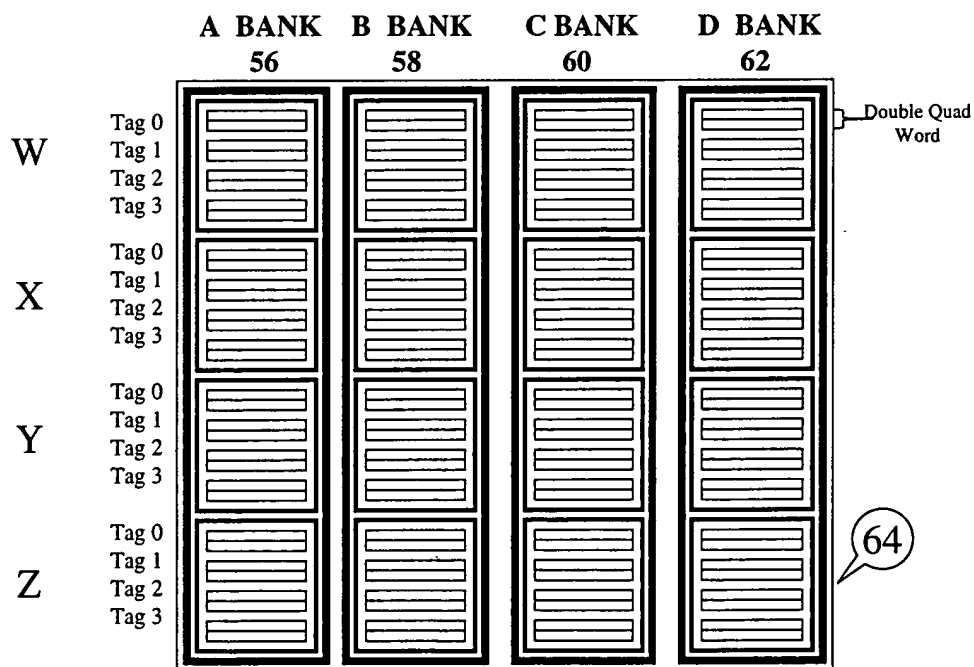Figure 3 Texel Type

Figure 4 Texture Block Identifiers

Figure 5 Memory - Cache Mapping

Figure 6 Texture Cache Memory

Figure7 Texture Cache Controller

Figure 8 Texture Cache Arbiter